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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,596	03/16/2001	Raj Mani Misra	I-2-158.1US	8142
24374	7590	05/20/2004	EXAMINER	
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			HA, DAC V	
			ART UNIT	PAPER NUMBER
			2634	5

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/810,596

**Applicant(s)**

MISRA ET AL.

**Examiner**

Dac V. Ha

**Art Unit**

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Objections***

1. **Claims 2-13, 15-20** are objected to because of the following informalities:

**Claim 2:**

The parameter "N" should be clearly defined (i.e. real number).

**Claim 8:**

All parameters "k", "M", "N", "i", "n" should be clearly defined (i.e. real number).

Lines 10-11, the recitation "spreading code s" should be made in consistent with "intermediate code s" on line 10.

Lines 11, the recitation "assigned code (d)" should be clarified (i.e. "d" previously designated "data signal (d)").

Line 20, "said spread data signals" should be made consistent with "spread data signal" on line 19.

**Claim 9:**

The parameter "N" should be clearly defined (i.e. real number).

**Claim 15:**

The parameter "N" should be clearly defined (i.e. real number).

**Claim 16:**

"said rotating step" should be changed to i.e. "the rotating step".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

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2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. **Claim 1** recites the limitation "said data symbol" in 5. There is insufficient antecedent basis for this limitation in the claim.

5. **Claim 8** recites the limitation "said spreading factor SF" in line 9; "said data input symbol ( $d_i$ )" in line 16; "said respective group N" in line 16; "said respective data signal (d)" in lines 18 & 19. There are insufficient antecedent basis for these limitations in the claim.

6. **Claim 10** recites the limitation "said rotator" in line 2; "said respective data signal (d) in lines 2-3. There are insufficient antecedent basis for these limitations in the claim.

7. **Claim 11** recites the limitation "said plurality of assigned spreading codes" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

8. **Claim 12** recites the limitation "'said channelization codes" in line 1 and "said scrambling codes" in line 2. There are insufficient antecedent basis for these limitations in the claim.

9. **Claim 13** recites the limitation "said rotator" in line 2; "said respective data signal ( $d$ )" and "said total number of complex channelization and complex scrambling codes". There are insufficient antecedent basis for these limitations in the claim.

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10. **Claim 14** recites the limitation "said symbols" in line 6; "said real codes" in line 11; "said symbol" in line 12. There is insufficient antecedent basis for this limitation in the claim.

11. **Claim 16** recites the limitation "said assigned codes" in line 3. There is insufficient antecedent basis for this limitation in the claim.

12. **Claim 20** recites the limitation "said assigned codes" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

13. Claims 1-20 would be allowable if rewritten or amended to overcome the objection and rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Agee (US 6,512,737) discloses Stacked Carrier Discrete Multiple Tone Communication System.

Kwon et al. (US 6,151,328) disclose Apparatus And Method For Controlling Power In Code Division Multiple Access System.

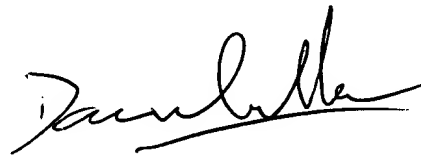
Kelton et al. (US 6,031,865) disclose Rapidly Decorrelating Spreading Sequences For DS-CDMA Transceiver.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line drawn underneath the signature.

Dac V. Ha  
Examiner  
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